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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/825,562      | 04/15/2004  | Shinya Kudo          | 03702/0201160-US0   | 9129             |

7278 7590 02/22/2007  
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| EXAMINER |
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LOUIE, WAE LENNY

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| ART UNIT | PAPER NUMBER |
|----------|--------------|

3661

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE  | DELIVERY MODE |
|--|------------|---------------|
| 3 MONTHS                               | 02/22/2007 | PAPER         |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/825,562

Applicant(s)

KUDO, SHINYA

Examiner

Wae Lenny Louie

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 4/15/2004, 4/05/2005
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Hasegawa (6,847,894).

Regarding applicant claim 1, Hasegawa discloses a vehicle drive assist system comprising: a means for recognizing a solid object in front of own vehicle based on an imaging means (column 2, lines 7-24, "capturing an external image"); a means for detecting an intention of own vehicle to cross an oncoming lane (column 3, lines 16-31, "recognizing means set to the direction of the primary vehicle"); a means for detecting an oncoming vehicle waiting in front of own vehicle (column 2, lines 50-67, "recognizing means"); a means for establishing a detecting area in the vicinity of said oncoming waiting vehicle (column 2, lines 50-67, "plurality of sub-regions"); and a means for detecting an oncoming vehicle traveling straight in said detecting area (column 3, lines 1-30, "three types of templates, for traveling straight, turning left and turning right").

Regarding applicant claim 2, Hasegawa discloses a vehicle drive assist system wherein said means to detect an intention of said vehicle to cross oncoming lane when brakes are applied to said vehicle which includes low speeds and turn signal switch

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(column 2, lines 7-24, "updating the templates when a brake pedal is pressed and recognizing means").

Regarding applicant claim 3, Hasegawa discloses a vehicle drive assist system wherein said means to recognize an oncoming vehicle as an oncoming vehicle waiting when said oncoming vehicle exists within a predetermined distance in front of said vehicle and when said oncoming vehicle travels at a low speed toward said own vehicle and when said oncoming vehicle is detected successively on several frames of said images (column 5, lines 44-68, "recognizing section 106 determines to send control signals to the ECU 74... recognizes situation in the traveling direction of the primary vehicle... processes the images stored in the image memory section 104").

Regarding applicant claim 4, Hasegawa discloses a vehicle drive assist system wherein said means recognize an oncoming vehicle as an oncoming vehicle traveling straight when a new solid object appears in said detecting area and when only a portion on an oncoming lane of said new solid object is detected (column 8, lines 30-65, "recognizing section calculates local movement in each sub-region... local movement reflects the value of the optical flows of the sub-region in Fig. 9. It should be noted that the local movements includes directional information for the direction of the optical flows in each sub-region.")

Regarding applicant claim 5, Hasegawa discloses a vehicle drive assist system wherein another solid object always exists in said detecting area, a new detecting area is established on the oncoming lane side of said other solid object and said detecting area is substituted with said new detecting area (column 10, lines 9-25, "updating

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process for intensity value and weight in each sub-region of the template. This process is performed on all sub-regions”).

Regarding applicant claim 6, Hasegawa discloses a vehicle drive assist system further comprising a warning means for warning a driver of said vehicle when an oncoming vehicle traveling straight is detected (column 2, lines 40-50, “the collision avoidance action includes making an alarm or warning display”).

### ***Conclusion***


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wae Lenny Louie whose telephone number is 571-272-5195. The examiner can normally be reached on M-F 0800-1630.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Thomas G. Black can be reached on 571-272-6956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

WLL



THOMAS BLACK  
SUPERVISORY PATENT EXAMINER